STIC Search Report
EIC 2100

STIC Database Tracking Number: 133018

TO: Jungwon Chang **Location:** **Art Unit : 2154** **Monday, September 20, 2004** **Case Serial Number: 09/544754**	**From: David Holloway** **Location: EIC 2100** **PK2-4B30** **Phone: 308-7794** **david.holloway@uspto.gov**

Search Notes

Dear Examiner Chang,

Attached please find your search results for above-referenced case.
Please contact me if you have any questions or would like a re-focused search.

David

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Set     Items   Description
S1      10123   (NODE? OR SERVER? OR ROUTER? OR GATEWAY?)(2N)(MULTIPLE OR -
             MULTIPLICITY OR PLURAL OR SEVERAL OR MANY OR DIFFERENT OR VAR-
             IOUS OR CLUSTER?) OR MULTISERVER?
S2     418514   LEADER? OR PRIMARY OR PRINCIPAL OR MASTER OR ADMINISTRATOR?
S3    4487355   ELECT? OR SELECT? OR CHOOSE? OR DETERMINE
S4    1885422   REPLACEMENT? OR NEW OR DIFFERENT? OR BACKUP OR BACK()UP
S5         57   S1 AND S2 AND S3 AND S4
S6         14   S5 AND IC=G06F-015?
S7        213   S2(2N)(NODE? OR SERVER? OR ROUTER? OR GATEWAY?)(5N)(S3 OR -
             VOTE?)
S8         35   S7 AND IC=G06F-015?
S9         32   S8 NOT S6
S10        13   S9 NOT AD=20000407:20030407
S11        13   S10 NOT AD=20030407:20040922
S12      5617   (GROUP? OR CLUSTER? OR SUBNETWORK?)(2N)S2
S13        94   S12 AND (NODE? OR SERVER? OR ROUTER? OR GATEWAY?)
S14        37   S13 AND (S3 OR S4)
S15        33   S14 NOT (S9 OR S11 OR S6)
S16        11   S15 AND IC=G06F-015?
File 347:JAPIO Nov 1976-2004/May(Updated 040903)
         (c) 2004 JPO & JAPIO
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200459
         (c) 2004  Thomson Derwent
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16/5/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

016046992 **Image available**
WPI Acc No: 2004-204843/200420
XRPX Acc No: N04-162729

Computer cluster connection migration method in which connections are seamlessly switched between a first and second computer by use of a virtual network address which is transferred between the two computers

Patent Assignee: MEIOSYS (MEIO-N); MEIOSYS SA (MEIO-N)
Inventor: DUFOUR L; VERTES M

Number of Countries: 105 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
FR 2843210	A1	20040206	FR 20029856	A	20020802	200420	B
WO 200415513	A2	20040219	WO 2003FR2372	A	20030728	200420	
AU 2003273482	A1	20040225	AU 2003273482	A	20030728	200456	

Priority Applications (No Type Date): FR 20029856 A 20020802
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2843210	A1		24	G06F-011/30	
WO 200415513	A2	F		G06F-000/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PG PH PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR HU IE IT KE LS LU MC MW MZ NL OA PT RO SD SE SI SK SL SZ TR TZ UG ZM ZW

AU 2003273482 A1 G06F-011/30 Based on patent WO 200415513

Abstract (Basic): FR 2843210 A1

NOVELTY - Method for implementing a migration of connections within a computer **cluster** from a **primary** operational **node** to a secondary **node** supplied by a further computer within the **node** . The method employs a virtual network address, which is assigned to the first computer and then transferred to the second computer. The virtual address acts as a dialogue link between the cluster and client computers that connect to the clusters for implementation of a software application.

DETAILED DESCRIPTION - The invention also relates to a corresponding computer cluster system.

USE - Method for migration of connections within a computer cluster, e.g. for replication of a software application in another computer so that provided services can be switched from a first computer to its **replacement** in the case of failure or for maintenance purposes.

ADVANTAGE - Use of a virtual network address provides seamless changeover of network connections and ensures continuity of service and function provision.

DESCRIPTION OF DRAWING(S) - (Drawing includes non-English language text). The figure shows a schematic view of an arrangement for method implementation.

pp; 24 DwgNo 1/3

Title Terms: COMPUTER; CLUSTER; CONNECT; MIGRATION; METHOD; CONNECT; SEAM; SWITCH; FIRST; SECOND; COMPUTER; VIRTUAL; NETWORK; ADDRESS; TRANSFER; TWO ; COMPUTER
Derwent Class: T01
International Patent Class (Main): G06F-000/00; G06F-011/30
International Patent Class (Additional): G06F-013/38; **G06F-015/163** ; H04L-012/26
File Segment: EPI

16/5/9 **(Item 9 from file: 350)**
DIALOG(R)File 350:Derwent WPIX

014220432 **Image available**
WPI Acc No: 2002-041130/200205
XRPX Acc No: N02-030589

Managing distributed cache that stores cache information at participating nodes in a network

Patent Assignee: UTSTARCOM INC (UTST-N)
Inventor: ZHANG G
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200138983	A2	20010531	WO 2000US32300	A	20001122	200205	B
CN 1451116	A	20031022	CN 2000816029	A	20001122	200406	

Priority Applications (No Type Date): US 2000210342 P 20000607; US 99166882 P 19991122
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200138983	A2	E	84	G06F-011/00	
Designated States (National): CN					
CN 1451116	A			G06F-011/00	

Abstract (Basic): WO 200138983 A2

NOVELTY - Method entails performing topology discovery, maintenance, and hierarchy building sub-processes to establish a nodal hierarchy in the network (100) in order to facilitate exchange of the cache entries between the participating **nodes** . The hierarchy is formed by peer groups each including at least one associated member of the participating **nodes** , and performing distributed cache synchronization (DCS) functions including copying and transferring **selected** cache entries to other participating **nodes** via the hierarchy in accordance with a DCS protocol.

DETAILED DESCRIPTION - A peer **group leader** is determined from among known members of an associated peer group, based on the priority values assigned to the known members. Topology discovery, maintenance, and hierarchy building sub-process is performed by generating and transmitting neighborhood hello messages via the network for discovering neighboring **nodes** . AN INDEPENDENT CLAIM is made for a network having several participating **nodes** operating in accordance with a distributed cache synchronization protocol for managing a distributed cache including cache entries each having associated cache information.

USE - For managing distributed cache that stores cache information at participating **nodes** of a network, applicable in mobile telecommunications networks with increasing subscribers, coverage areas, and base stations for managing subscriber profile information, and location information.

ADVANTAGE - Invention provides a location update protocol, which reduces the load on the central **server** /database by reducing queries for subscriber profiles, which enables less powerful and more inexpensive **server** to be used for central **server** site for managing location data.

DESCRIPTION OF DRAWING(S) - Drawing (Fig.3B) shows a block diagram of components of base station of wireless mobile communications network (Fig.3A) having distributed cache for managing subscriber profile information, operated in accordance with location update protocol supported by DCS protocol.

Network (100)

pp; 84 DwgNo 3/10

Title Terms: MANAGE; DISTRIBUTE; CACHE; STORAGE; CACHE; INFORMATION; PARTICIPATING; **NODE** ; NETWORK
Derwent Class: T01
International Patent Class (Main): G06F-011/00
International Patent Class (Additional): G06F-012/00; G06F-012/08; G06F-013/14; **G06F-015/00** ; **G06F-015/16** ; **G06F-015/163** ; **G06F-015/17** ; H04J-012/28

16/5/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX

016180684 **Image available**
WPI Acc No: 2004-338571/200431
XRPX Acc No: N04-270568
IP multicast communication reachability maintaining method for fault tolerant packet transmission systems, involves electing new subnetwork leader **for associated** subnetwork leader **when** subnetwork leader **is multicast unreachable**
Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)
Inventor: NOVAES M N
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6732189	B1	20040504	US 2000531993	A	20000320	200431	B

Priority Applications (No Type Date): US 2000531993 A 20000320
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6732189	B1		26	G06F-015/16	

Abstract (Basic): US 6732189 B1
NOVELTY - The method involves receiving a host address list of all point-to-point address of a **node** in a network and monitoring a reachability of one **subnetwork leader** in the network. A **new subnetwork leader** is **elected** for the associated **subnetwork leader** if one **subnetwork leader** is multicast unreachable. A connection is established using IP multicast tunneling between newly **elected** leader and the leader in the network.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(a) a computer readable medium containing programming instructions for maintaining reachability of IP multicast communications
(b) a method for multicasting a message from a **node** in a subnetwork through a fabric to another **node** in a subnetwork
(c) a system for maintaining communications across an internet protocol multicast communications network.
USE - Used for maintaining IP multicast communication in fault tolerant packet transmission systems.
ADVANTAGE - The method provides a balanced communication between **nodes** with multicast protocols and efficient mechanism for monitoring the health of the tunneling endpoints by establishing alternative tunneling endpoints with which multicast datagrams.
DESCRIPTION OF DRAWING(S) - The drawing shows a flow chart of the process flow for generating a generalized communications network with possible connections in a network with five **subnetwork leader nodes** one network leader **node** for fault tolerant package switching according to IP multicast communication maintaining method.
pp; 26 DwgNo 12/12
Title Terms: IP; COMMUNICATE; MAINTAIN; METHOD; FAULT; TOLERATE; PACKET; TRANSMISSION; SYSTEM; **NEW** ; LEADER; ASSOCIATE; LEADER; LEADER
Derwent Class: W01
International Patent Class (Main): **G06F-015/16**
File Segment: EPI

11/5/1 **(Item 1 from file: 347)**
DIALOG(R)File 347:JAPIO

06386492 **Image available**
METHOD AND DEVICE FOR PROVIDING TRANSPARENT SERVER FAILOVER FOR HIGHLY AVAILABLE OBJECT

PUB. NO.: 11-328139 [JP 11328139 A]
PUBLISHED: November 30, 1999 (19991130)
INVENTOR(s): MURPHY DECLAN J
TALLURI MADHUSUDHAN
MATENA VLADIMIR
KHALIDI YOUSEF A
BERNABEU-AUBAN JOSE M
TUCKER ANDREW G
APPLICANT(s): SUN MICROSYST INC
APPL. NO.: 11-101887 [JP 99101887]
FILED: April 08, 1999 (19990408)
PRIORITY: 58406 [US 58406], US (United States of America), April 09, 1998 (19980409)
INTL CLASS: **G06F-015/177**

ABSTRACT

PROBLEM TO BE SOLVED: To provide the method and device for facilitating a transparent failover from a 1st server to a 2nd server.

SOLUTION: This method for providing the transparent failover from the 1st server to the 2nd server in response to the active calling of an object includes a process wherein the 1st **server** 212 functions as a **primary server** for calling the object and the 2nd **server** 213 is **selected** as a new **primary server** for the object if the 1st **server** 212 gets out of order, a process wherein the 2nd server 213 is so set again as to function the new primary server for the object, and a process wherein an incomplete active call is automatically retried to an object on the 2nd server.

11/5/12 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009919078 **Image available**
WPI Acc No: 1994-186789/199423
XRPX Acc No: N94-147148
Transmission distribution line fault diagnostic method - involves using, as master node , most efficient set of attributes selected by evaluation function to produce identification tree NoAbstract
Patent Assignee: TOGAMI ELECTRIC MFG (TOGA)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 6123755	A	19940506	JP 92274652	A	19921013	199423	B

Priority Applications (No Type Date): JP 92274652 A 19921013
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 6123755	A		25	G01R-031/08	

Abstract (Basic): JP 6123755 A
Dwg.1/1
Title Terms: TRANSMISSION; DISTRIBUTE; LINE; FAULT; DIAGNOSE; METHOD; MASTER; NODE; EFFICIENCY; SET; ATTRIBUTE; SELECT; EVALUATE; FUNCTION; PRODUCE; IDENTIFY; TREE; NOABSTRACT
Derwent Class: S01; T01; X12
International Patent Class (Main): G01R-031/08
International Patent Class (Additional): **G06F-015/18** ; H02H-003/00
File Segment: EPI

6/5/8 **(Item 6 from file: 350)**
DIALOG(R)File 350:Derwent WPIX

014603888 **Image available**
WPI Acc No: 2002-424592/200245
XRPX Acc No: N02-333785

Computer implemented arbitration method in communication network, involves comparing resources of client nodes to select **new master node which periodically broadcasts heartbeat messages to** multiple **client** nodes

Patent Assignee: 3COM CORP (THRE-N)
Inventor: IVERSON T J; NAEIMI R
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6363416	B1	20020326	US 98141829	A	19980828	200245	B

Priority Applications (No Type Date): US 98141829 A 19980828
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6363416	B1		16	G06F-015/16	

Abstract (Basic): US 6363416 B1

NOVELTY - A client node broadcasts a **master** negotiate request (MNR) message to **multiple** client **nodes** . In the event of receiving no response to the MNR message, the client node asserts itself as **new master** node. Otherwise, the resources of the client node are compared with other such nodes, based on the result of which a **new master** node periodically broadcasting heartbeat messages to **multiple** client **nodes** , is **selected** .

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for computer system.

USE - For automatic **selection** of representative **master** node for data retrieval in communication network such as local area network (LAN).

ADVANTAGE - Eliminates repetitive requests for information by individual nodes, thereby ensuring high network performance. Also, affords performance improvement in a fully automated manner with built-in redundancy, as a result of which the reliability of network communication is greatly improved.

DESCRIPTION OF DRAWING(S) - The figure shows a flow diagram of the automatic process for **selecting** a **master** node.

pp; 16 DwgNo 2/7

Title Terms: COMPUTER; IMPLEMENT; ARBITER; METHOD; COMMUNICATE; NETWORK; COMPARE; RESOURCE; CLIENT; NODE; **SELECT** ; **NEW** ; **MASTER** ; NODE; PERIOD; BROADCAST; HEART; MESSAGE; MULTIPLE; CLIENT; NODE
Derwent Class: T01; W01
International Patent Class (Main): **G06F-015/16**
International Patent Class (Additional): **G06F-015/173**
File Segment: EPI

6/5/13 **(Item 11 from file: 350)**
DIALOG(R)File 350:Derwent WPIX

013310587 **Image available**
WPI Acc No: 2000-482524/200042
XRPX Acc No: N00-358768

Resources mastering method for nodes in local area network, involves responding epoch change by modifying hash function corresponding to hash bucket and without modifying hash function corresponding to resource

Patent Assignee: ORACLE CORP (ORAC-N)
Inventor: BAMFORD R J; FISCHER J; KLOTS B; MIRCHANDANEY R
Number of Countries: 023 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200038062	A1	20000629	WO 99US28701	A	19991206	200042	B
AU 200024759	A	20000712	AU 200024759	A	19991206	200048	
EP 1055172	A1	20001129	EP 99968071	A	19991206	200063	
			WO 99US28701	A	19991206		
US 6363396	B1	20020326	US 98218864	A	19981221	200226	
JP 2002533809	W	20021008	WO 99US28701	A	19991206	200281	
			JP 2000590054	A	19991206		
CA 2320307	C	20030722	CA 2320307	A	19991206	200355	
			WO 99US28701	A	19991206		
AU 770875	B2	20040304	AU 200024759	A	19991206	200453	

Priority Applications (No Type Date): US 98218864 A 19981221
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200038062	A1	E	39	G06F-009/46	
Designated States (National): AU CA GB JP					
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
AU 200024759	A				Based on patent WO 200038062
EP 1055172	A1	E		G06F-009/46	Based on patent WO 200038062
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6363396	B1			G06F-017/00	
JP 2002533809	W		40	G06F-015/177	Based on patent WO 200038062
CA 2320307	C	E		G06F-009/46	Based on patent WO 200038062
AU 770875	B2			G06F-009/46	Previous Publ. patent AU 200024759
					Based on patent WO 200038062

Abstract (Basic): WO 200038062 A1

NOVELTY - By mapping resources (300) to a specific hash bucket (304) and specific hash bucket to a specific node (306), using hash functions, a node to **master** the resource is **selected** from set of resources. Upon **selecting** a specific node to be **master** of the resource, an epoch change is responded by modifying hash function corresponding to hash bucket and without modifying hash function corresponding to resource.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for resource mastering program.

USE - For mastering resources to nodes in local area network.

ADVANTAGE - Since the dynamic bucket to node hash function is adjusted after an epoch change, the load among **different nodes** in the system is managed and the number of resources that have to be remastered is minimized. Provides reconfiguring of network after an epoch change to reduce overhead and system unavailability incurred during reconfiguration.

DESCRIPTION OF DRAWING(S) - The figure shows block diagram to **determine** where to **master** the resources in multi-node system.

Resources (300)
Hash bucket (304)
Node (306)
pp; 39 DwgNo 4/5

Title Terms: RESOURCE; METHOD; NODE; LOCAL; AREA; NETWORK; RESPOND; CHANGE; MODIFIED; HASH; FUNCTION; CORRESPOND; HASH; BUCKET; MODIFIED; HASH;

FUNCTION; CORRESPOND; RESOURCE
Derwent Class: T01
International Patent Class (Main): G06F-009/46; **G06F-015/177** ; G06F-017/00
International Patent Class (Additional): G06F-012/00
File Segment: EPI

6/5/14 **(Item 12 from file: 350)**
DIALOG(R)File 350:Derwent WPIX

009714042 **Image available**
WPI Acc No: 1993-407595/199351
XRPX Acc No: N93-315509

Distributed management system for multinode, multicase communications network - has distributed control for creation, administration and operational mode selection **operative in each of network nodes**

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC); IBM CORP (IBMC)
Inventor: AUERBACH J S; DRAKE J E; GOPAL P M; HERVATIC E A; KAPLAN M A; KUTTEN S; PETERS M L; WARD M J
Number of Countries: 018 Number of Patents: 013
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 575279	A2	19931222	EP 93480056	A	19930505	199351	B
AU 9338390	A	19931223	AU 9338390	A	19930506	199407	
CA 2094410	A	19931219	CA 2094410	A	19930420	199410	
TW 223201	A	19940501	TW 93103090	A	19930422	199423	
JP 6152593	A	19940531	JP 93135505	A	19930607	199426	
AU 659546	B	19950518	AU 9338390	A	19930506	199528	
EP 575279	A3	19940817	EP 93480056	A	19930505	199530	
CN 1081042	A	19940119	CN 93107296	A	19930614	199712	
US 5634011	A	19970527	US 92900647	A	19920618	199727	
			US 95517305	A	19950821		
CA 2094410	C	19980505	CA 2094410	A	19930420	199829	
KR 9614979	B1	19961023	KR 9311007	A	19930614	199929	
EP 575279	B1	20030723	EP 93480056	A	19930505	200356	
DE 69333105	E	20030828	DE 633105	A	19930505	200364	
			EP 93480056	A	19930505		

Priority Applications (No Type Date): US 92900647 A 19920618; US 95517305 A 19950821
Cited Patents: No-SR.Pub; 1.Jnl.Ref; EP 361649
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 575279	A2	E	28	H04L-012/24	
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE					
AU 9338390	A			H04L-012/24	
CA 2094410	A			H04L-012/56	
TW 223201	A			H04L-029/02	
JP 6152593	A		26	H04L-012/00	
AU 659546	B			H04L-012/24	Previous Publ. patent AU 9338390
EP 575279	A3			H04L-012/24	
CN 1081042	A			H04L-012/56	
US 5634011	A		27	H01H-067/00	Cont of application US 92900647
CA 2094410	C			H04L-012/56	
KR 9614979	B1			H04L-012/28	
EP 575279	B1	E		H04L-012/24	
Designated States (Regional): AT BE CH DE ES FR GB IT LI NL SE					
DE 69333105	E			H04L-012/24	Based on patent EP 575279

Abstract (Basic): EP 575279 A

The communications network management system has **many** interconnected **nodes** each having a set manager for controlling either creation of, administration or access to a set of users. The set manager maintains a record of the local subscribers. A set manager for each subscriber group is designated as set **leader** to maintain membership information about all the users in the multicast group.

One of the set managers is designated as the registrar which maintains a list of all the set **leaders** in the network. The registrar insures that there is only one set **leader** per user set, answers inquiries about membership and directs inquiries to appropriate set **leaders** if necessary.

ADVANTAGE - All functions can be carried out by any node. Assume function at **new** node when failure or partition occurs in network.

Dwg.2A/10

Title Terms: DISTRIBUTE; MANAGEMENT; SYSTEM; COMMUNICATE; NETWORK; DISTRIBUTE; CONTROL; CREATION; ADMINISTER; OPERATE; MODE; **SELECT** ; OPERATE; NETWORK; NODE
Derwent Class: W01
International Patent Class (Main): H01H-067/00; H04L-012/00; H04L-012/24; H04L-012/28; H04L-012/56; H04L-029/02
International Patent Class (Additional): **G06F-015/16** ; H04J-003/16; H04L-005/22; H04L-012/18; H04L-012/26
File Segment: EPI